

RECYCLED TIRE SEWAGE TREATMENT APPARATUS AND METHOD

Field of Invention

This invention relates generally to sewage treatment systems, specifically to a system composed primarily of used tires.

Background-Prior Art

Septic tank and drainfield combinations have been utilized for sewage treatment and disposal for over one hundred years and are in the common knowledge of the general public.

Used tires and their properties are familiar to most members of the general public.

Use of tires bound together as components in a sewage treatment and disposal system is not in the prior art.

Objects and Advantages¹

In that light, objects and advantages of the invention are to provide an economical use for recycled tires, and to provide an economical equivalent to existing sewage treatment methods.

Drawing Figures

Fig. 1 is a side view of the first step in the construction process of the invention-gluing two used tires together.

Fig. 2 is a side view of a completed component-in this case many used tires glued together.

Fig. 3 is a frontal view of a used tire prepared for drainage of treated sewage by addition of hole D.

Fig. 4 is a side view of one example of a completed sewage treatment system constructed primarily of used tires.

Fig. 5 is a top view of a plastic plate used to seal a tire except for pipe entry holes.

Fig. 6 is a top view of a plastic plate used to seal a used tire.

Fig. 7 is a side view of a septic tank or pump tank unit constructed of used tires and plastic plates.

SUMMARY

In accordance with the invention, used tires are glued together with industrial glue to form components of a sewage treatment system. To form a septic tank the section of tires glued together is capped with a plastic plate with pipe holes and a plastic plate without holes is glued to the bottom. The section of tires glued together to form a drainfield line or chamber is capped at the front end with a glued-on plastic plate with a pipe hole in it. The tires are further enhanced for this use by the addition of holes in the bottom edge of the tires to allow drainage of the treated sewage.

Fig. 1-Description and operation of major components

Used tire A is glued with industrial glue B to used tire C. This process is repeated to form the desired length of the specific sewage treatment component-septic tank, pump tank, drainfield line or chamber, clear well, distribution box, wetland cell, chemical containment unit or other desired component.

Fig. 2-Description and operation of drainfield sedimentation chamber or drainfield line or chamber.

Used tire A is glued to used tire C with industrial glue B to form a chamber which may be used as a drainfield line or chamber, or with the addition of end plates E and H as shown in figures 5 and 6, as a sedimentation basin in a horizontal orientation.

Fig. 3-Description and operation of tire aperture

Hole D is drilled into used tire A to provide drainage of the treated sewage effluent from unit Z in figure 4.

Fig. 4-Description and operation of a complete sewage treatment system constructed primarily of used tires.

Unit Z, a sedimentation basin receives sewage from pipe X. Pipe X passes through plastic lid E which is glued onto tire A. The sewage is contained within the glued-together tires by bottom cap H. The clarified effluent passes through pipe Y up through cover plate E and into the drainfield chamber through another plate E with a single pipe hole. Used tire A is glued to used tire C with industrial glue B, and this process is repeated with successive tires until the desired component length is achieved. Sewage effluent flows from pipe Y, through end plate E, into the chamber. The treated sewage effluent flows down the length of the chamber, draining through holes D into the soil or other absorbent media.

Fig. 5-Description and operation of end plate.

Plastic plate E of sufficient size to cover the tire hole of the first tire in the component is outfitted with holes F and G to allow passage of sewage influent and effluent through pipes.

Fig. 6-Description and operation of end cap without apertures.

Plastic plate H of sufficient size is selected to cover the end of used tire sewage treatment components from which no flow is desired.

Fig. 7-Description and operation of generic used tire component.

Used tire assemblage Z is outfitted with top cover E and bottom Plate H.

The single unit illustrated in figure 4 may be sufficient for treatment of the entire sewage flow, depending upon tire size, soil type, geologic conditions, sewage flow per day, etc.. Multiple units may be used to increase capacity.

The specifics contained in the above description should not be construed as limits on the scope of the invention. Many variations are possible within the teachings of the invention. For example, the basic sealed glued-together tire unit could be utilized for a clear well, wetland cell, distribution box or other sewage treatment unit. In addition, liquid wastes other than sewage can be processed with this invention.

Thus the scope of the invention should be determined by the following claims and legal equivalents: